

REMARKS

Claims 1, 2, 4, 5, 8-19, 22-24, and 26-29, 32-38, 40, 41, and 43-48 are pending in this application. By this Reply, claims 1, 2, 4, 5, 8, 9, 12, 14, 24, 26-29, 32, 34-38, 40, 41, and 43 are amended, claims 3, 30, 31, 39, and 42 are canceled, and new claims 44-48 have been added. Reconsideration and withdrawal of the rejections are respectfully requested in view of the foregoing amendments and the following remarks.

Entry of the amended claims is proper under 37 C.F.R. §1.116 since the amendments: (1) place the application in condition for allowance (for the reasons discussed herein); (2) do not raise any new issues requiring further search and/or consideration (since the amendments amplify issues previously discussed throughout prosecution without incorporating additional subject matter); (3) satisfy a requirement of form asserted in the previous Office Action; and/or (4) place the application in better form for appeal (if necessary). Entry is thus requested.

For example, claims 1, 2, 4, 5, 8, 12, 14, and 26 have been amended to include features that were fully examined by the Patent Office since they were recited in other pending claims. Specifically, claims 1, 2, 12, and 26 have been amended to include the feature of a recognition code, as recited in at least claim 9. Additionally, claims 4, 5, 8, and 14 have been amended to include the feature of including display type information in each of a synchronizing signal and a video signal, as recited in allowable claims 17 and 27. Finally,

claims 1, 24, 27, 28, and 37, 38, 40, and 41 have been amended to attend to informalities.

Entry is thus requested.

Claims 1, 27, 28, and 37-41 stand objected to based on informalities. These claims have been amended and are believed to comply with the requirements of the Patent Office. Withdrawal of this objection is respectfully requested.

Claims 1-3, 8, 9, 11, 12, 22-24, 26, 30, 31, 37, 39, and 42 stand rejected under 35 U.S.C. § 102(e) over Wu (U.S. Patent No. 5,986,636). This rejection is respectfully traversed.

Claims 1, 2, 8, 12, and 26 broadly recite features of the preferred embodiment. The preferred embodiment relates to an apparatus and method of interfacing video information in a computer system. Thus, when a displays device is coupled to a main body, information regarding the display type is communicated between the monitor 32/52 and the main body 31/51. Thus, for example, according to one embodiment as shown in Figure 6, the main body carries the display type information of the R/G/B video signal on any one of a sync signal, the R video signal, the G video signal, and the B video signal.

Moreover, according to at least one embodiment, the various types of the display type information can be provided using a recognition code. Referring to Figure 8, which exemplifies a type of the display type information, the information is composed of a total of 16 bits, including a recognition code of 2 bits and corresponding data of 14 bits.

The recognition code is used to differentiate various data that is provided. For example, the recognition code indicates what the subsequent data represents. Thus,

depending on the recognition code, the subsequent data could represent information on the number of dots for one horizontal period, the number of backporches for one horizontal period, the number of horizontal lines for one vertical period, or the number of horizontal lines of a backporch for one vertical period. Accordingly, but the recognition code and the data are necessary to provide the display information.

Wu relates to apparatus and method for detecting and modifying and display types. Referring to column 5, lines 52-55 Wu discloses that display parameters are previously stored in a memory 52 of a computer 1. Next, referring to column 6, lines 7-15, the display parameter set that corresponds to a new display mode is retrieved from memory 52 and provided to the monitor 60 over bus line 70. This information is sent in addition to the synchronizing signals generated by the new display card 50. Moreover, referring to column 7, lines 10-20, the display information is transmitted to the monitor 60 over the serial data line SDA. Moreover, referring to column 7, lines 1-3, Wu discloses that the bus 70 may be implemented using spare pins of the conventional video graphics array interface. The display information is therefore not sent on any one of the horizontal sync signal, the R video signal, the G video signal, and the B video signal. Rather, the display information is disclosed to be a separate signal altogether.

Wu further makes no disclosure of the recognition code. Rather, Wu simply discloses that an information packet may be transmitted including addresses and data between a start bit and a stop bit. See column 7, lines 10-17. This is not the same as a recognition code as

used in the pending claims, since the start and stop bit do not indicate how the data is to be interpreted or according to the value of the start and stop bits.

Moreover, to the extent that the Patent Office relies upon an inherent disclosure in Wu, it is respectfully submitted that the claimed features that are not expressly disclosed by Wu would not be inherent in Wu. For example, as recently stated by the Court of Appeals for the federal circuit in Rosco, Inc. v. Mirror Lite Co., 304 F.3d 1373, 64 U.S.P.Q.2d (BNA) 1676 (Fed. Cir. 2002),

Under the doctrine of inherency, if an element is not expressly disclosed in a prior art reference, the reference will still be deemed to anticipate a subsequent claim if the missing element "is necessarily present in the thing described in the reference, and that it would be so recognized by persons of ordinary skill." Cont'l Can Co. v. Monsanto Co., 948 F.2d 1264, 1268, 20 U.S.P.Q.2d 1746, 1749 (Fed. Cir. 1991). "Inherent anticipation requires that the missing descriptive material is 'necessarily present,' not merely probably or possibly present, in the prior art." Trintec Indus., Inc. v. Top-U.S.A. Corp., 295 F.3d 1292, 1295, 63 U.S.P.Q.2d 1597, 1599 (Fed. Cir. 2002) (quoting In re Robertson, 169 F.3d 743, 745, 49 U.S.P.Q.2d 1949, 1950-51 (Fed. Cir. 1999)). (Emphasis added).

Because the features of the pending claims are not necessarily present in Wu, they are therefore not inherent in Wu.

Accordingly, Wu fails to disclose at least a main body, which outputs a video signal and corresponding display type information, the display type information including a recognition code for designating a kind of the corresponding display type information, and data corresponding to the recognition code, as recited in claim 1.

Moreover, Wu fails to disclose at least a main body, which outputs a video signal through a video signal line, and outputs information relating to the video signal display type, the information relating to the video signal display type including a display code that designates the video signal display type, wherein the display code comprises a recognition code for designating a kind of the corresponding video signal display type information, and the information corresponding to the recognition code, as recited in claim 2.

Additionally, Wu fails to disclose at least transmitting video signal display type information from a main body to a monitor through one of the horizontal and vertical sync signals and a video signal, the video signal display type information being divided to comprise divided display type information having at least two parts, and wherein a first part of the divided display type information is embedded into one of the horizontal sync signal and the vertical sync signal, and wherein a second part of the divided display type information is embedded into at least one of R, G, and B video signals comprising the video signal, respectively, the video information display type information including a display code that designates a video display type, as recited in claim 8.

Furthermore, Wu fails to disclose at least transmitting display type information of a video signal in communication data, along with the horizontal and vertical sync signals from a main body to a monitor, the display type information including a display code that designates the video signal display type, wherein the display type comprises a recognition

code for designating a kind of the corresponding display type information, and display data corresponding to the recognition code, as recited in claim 12.

Finally, Wu fails to disclose at least a computer transmitting horizontal and vertical sync . . . and a video signal . . . wherein a display type information of the video signal, including a display code that designates the video signal display type, is included in one of the serial data signal of the display data channel and the horizontal sync signal, wherein the display code comprises a recognition code for designating a kind of the corresponding video signal display type data, and data corresponding to the recognition code, as recited in claim 26.

Dependent claims 13, 15, 16, 29, 32-36, 38, 40, 41, and 43 are allowable for at least the reasons discussed hereinabove with respect to their corresponding independent claims.

Because Wu fails to disclose all of the claimed features, as required by Section 102, it is respectfully requested that this rejection be withdrawn.

Claim 10 stands rejected under 35 U.S.C. § 103(a) over Wu. This rejection is respectfully traversed.

Claim 10 depends from claims 8 and 9, and is allowable for at least the reasons discussed above with respect these claims. Accordingly, a prima facie case of obviousness cannot be made. Withdrawal of this rejection is respectfully requested.

Claims 4, 5, 13-16, 29, 32-36, 38, 40, 41, and 43 stand rejected under 35 U.S.C. § 103(a) and over Wu, in view of Arai et al. (U.S. Patent No. 5,457,473) (hereinafter Arai). This rejection is respectfully traversed.

Independent claims 4, 5, and 14 broadly recite features of the preferred embodiment, and have been amended to recite the allowable features of claims 17 and 27. Accordingly, a prima facie case of obviousness cannot be made.

For example, Wu is discussed above, and fails to teach or suggest all of the claimed features. Arai relates to an image display apparatus that as a control signal to a video signal or a synchronizing signal. Arai, however, fails to teach or suggest that the control signal includes a recognition code in addition to the data corresponding to the recognition code. Moreover, Arai fails to teach or suggest that the control signal is provided on each of a synchronizing signal and a video signal.

Accordingly, the asserted combination of references fails to teach or suggest all the claimed features. For example, the asserted combination of references fails to teach or suggest a main body, which outputs a video signal, a horizontal sync signal, a vertical sync signal, and video signal display type information identifying a video type of the video signal, the video signal display type information including a display code that designates the video signal display type, wherein the video signal display type information is divided to comprise divided display type information having at least two parts, and wherein the divided display

type information is embedded into the horizontal sync signal and at least one of R, G, and B video signals forming the video signal, respectively, as recited in claim 4.

Moreover, the asserted combination of references fails to teach or suggest a main body, which provides information relative to a display type of a video signal, the information being divided to comprise divided display type information having at least two parts, wherein a first part of the divided display type information is embedded into one of the horizontal sync signal and the vertical sync signal, and wherein a second part of the divided display type information is embedded into at least one of R, G, and B video signals comprising the video signal, respectively, and outputs the video signal, the horizontal sync signal, and a vertical sync signal, as recited in claim 5.

Additionally, the asserted combination of references fails to teach or suggest dividing display type information of a video signal into at least two parts and transmitting divided display type information of the video signal in each of a horizontal sync signal and the video signal, respectively, from a main body, the display type information including a display code that designates the video signal display type, as recited in claim 14.

Dependent claims 13, 15, 16, 29, 32-36, 38, 40, 41, and 43 are allowable for at least the reasons discussed hereinabove with respect to their corresponding independent claims.

Because the asserted combination of references fails to teach or suggest all the claimed features, it is respectfully submitted that a prima facie case of obviousness cannot be made. Withdrawal of this rejection is thus respectfully requested.

New claims 44-48 have been added and are believed in condition for allowance. Moreover, these claims recite features that are recited in various other claims, in which have been fully examined by the Patent Office. Consequently, it is respectfully submitted that no new issues are raised by the addition of these new claims. For example, new claims 44, 45, 48, and 51 recite features similar to those recited in allowable claims 17 and 27, and claims 46, 37, 49, 50, and 52 recite features similar to those recited in claim 9. Entry of these new claims is thus proper. Prompt examination and allowance in due course are earnestly solicited.

CONCLUSION

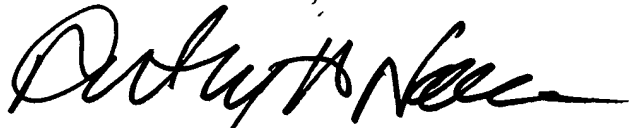
In view of the foregoing amendments and remarks, it is respectfully submitted that the application is in condition for allowance. If the Examiner believes that any additional changes would place the application in better condition for allowance, the Examiner is invited to contact the undersigned attorney, Anthony H. Nourse, at the telephone number listed below.

Serial No. 09/628,503

Docket No. K-0191

To the extent necessary, a petition for an extension of time under 37 C.F.R. 1.136 is hereby made. Please charge any shortage in fees due in connection with the filing of this, concurrent and future replies, including extension of time fees, to Deposit Account 16-0607 and please credit any excess fees to such deposit account.

Respectfully submitted,
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Date: May 21, 2003